THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. XCI.] THURSDAY, OCTOBER 15, 1874. [No. 16.

Original Communications.

ANGINA PECTORIS, ILLUSTRATED BY THE CASE OF CHARLES SUMNER.*

By JOSEPH TABER JOHNSON, A.M., M.D.,

Lecturer upon Obstetrics in the Medical Department of Georgetown College, Washington, D. C.

MR. PRESIDENT,—The terms of the resolution requesting this paper confine it to the consideration of "what is known of the pathology and treatment of angina pectoris," and asks for "illustrations from the case of Charles Sumner, who was for several years under my care."

So little has been definitely settled by the profession concerning its "pathology and treatment," that but a moment or two of your time would be consumed in the statement of known facts, and I shall therefore request permission in the outset to go somewhat outside of your request, that I may refer as well to some of the opinions which have been entertained from time to time by prominent medical men within the last century.

It is now a little more than one hundred years since this disease first received a name and a place among the ills which afflict the human race.

Dr. Heberden, in 1768, first described angina pectoris, and declared that it was caused by organic disease of the heart. His articles were published in the second and third volumes of the Transactions of the London College of Physicians, since which time very little of its real pathology, if any, has been discovered, and almost nothing has been definitely decided in regard to its treatment.

In 1779, Dr. Parry wrote "an inquiry into the symptoms and causes of 'syncope anginosa,' commonly called angina pectoris."

For many years after this work, the most weighty authorities united in attributing it to a sudden impediment in the coronary circulation. A weak, flabby condition of the heart was held by equally good men to be its undoubted cause for a number of years.

It being clinically true that during an attack, and in many cases during the interval, the impulse of the heart is weak and the pulse intermittent, it was argued that any cause which would produce these symptoms was therefore a cause of angina. And under this head were classed fatty degeneration, attenuation of the ventricular walls, insufficiency of the aortic valves, with regurgitation; but, as a rule, the majority of writers placed as its chief operating cause a defective coronary circulation.

* Prepared at the request of the Medical Society of the Alumni of the Medical Department of Georgetown College, Washington, D. C., and read May 4, 1874.

Some went so far as to declare this to be the only cause, and endeavored to prove that as a result of partial or complete occlusion of one coronary artery by ossification or atheromatous deposit, the heart, thus getting only a part of its blood supply, would be weak, and exhibit symptoms similar to fatty degeneration.

Dr. Stokes, the great Dublin authority on chest diseases, concludes that angina sums up the symptoms of a weakened heart, and connects it with disease of the coronary arteries.

Dr. Copeland thinks a variety of morbid changes in the heart may predispose to it.

Dr. Latham has written considerably to prove it to be caused by spasm of the heart, and insists upon its analogy to cramp in the voluntary muscles, and upon the efficacy of opium in relieving the distress. There is no doubt of the similarity in some respects of the agonizing pain and sense of constriction of the chest in angina, with the cramp of some of the voluntary muscles. It is, however, known to be true that this stroke of cramp or spasm of these muscles may continue in a state of absolute rigidity for a variable length of time, while there is required on the part of the heart constant relaxations, in order to admit the blood into its cavities from the return venous circulation, and that cramp or spasm of the heart would as much interfere with its functional action as a shock of paralysis.

It was until recently believed that this disease was always connected in some way, but exactly how no one attempted fully to explain, with some of the various pathological conditions of the heart or large arteries.

Niemeyer says angina pectoris is found almost exclusively in persons suffering from organic disease of the heart. Either ossification of the coronary arteries, valvular defects, hypertrophy, degeneration, or aneurism of the aorta has been found upon autopsy of most persons who have been afflicted in this manner. Nevertheless, we cannot regard angina pectoris as indicative of any of these diseases, not one of them being constant. And the malady itself always takes the same form, while the structural alterations differ most widely.

He calls it "nervous disorder of the heart," and quotes the term "cardiac neuralgia," to which these various organic changes merely afford a predisposition.

In certain rare instances, he has seen it where no organic disease existed, particularly in old obese persons.

Watson was of the opinion that it was a symptom of fatty degeneration, and considerable doubt began to be expressed if it was confined to cases of trouble with the coronary arteries; also whether there was any relation of cause or effect in its production assignable properly to disease of these arteries.

Wood states that in some cases it has been connected with tenderness of the spine. He thought that causes which resulted in the production of gout, rheumatism and neuralgia, when not present in sufficient force to produce any of these diseases, might produce angina, or that metastasis might occur. This is a comparatively rare affection.

Flint has seen 150 cases of organic disease of the heart, and only 7 of these had symptoms of angina.

He did not see a single case during the five years of a large private and hospital practice. He is of the opinion that it has a probable

connection, pathologically, with organic disease of the heart, but upon what pathological condition or circumstance common to different forms of organic disease it depends, is not yet ascertained.

He accounts for the suddenness of death in this very reasonable way, viz., he attributes it to over-accumulation of blood in the ventricular cavities, and arrest of the heart's action from paralysis. This disease has been noticed in persons where no pathological condition of the heart was present. In these cases, the great prostration and sense of impending death did not seem so great as where it had originated in some organic disease of the heart.

It is generally estimated, however, that the danger of sudden death in angina is proportioned to the gravity of the cardiac lesion which has given rise to it. There are several cases on record where the original disease of the heart has proved fatal without any of the angina symptoms making their appearance during the fatal attack.

Flint shows our lamentable ignorance upon its pathology as follows: "Of measures calculated to postpone or prevent the recurrence of its paroxysm, little is to be said, because we are unable to state upon which condition, of the various cardiac lesions, angina depends for its production," and he "knows of no remedies upon which reliance can be placed to effect a cure. Clinical discovery not having led to any means of striking at its root, it is doubtful if any special medication is to be pursued with a hope of effecting a cure, or in exerting a positive influence in lengthening the period of exemption from recurring attacks."

Handfield Jones, in his work on diseases of the nervous system, describes angina pectoris among functional troubles, and arrives at a positive opinion that it is a neuralgia. In answer to objections raised that neuralgia is never suddenly fatal, Jones declares that while neuralgia may be comparatively trivial when affecting the tri-facial or sciatic nerves, yet when it attacks the cardiac plexus it becomes a very grave affair. He accounts for the suddenness of death on the ground of the implication of organs which reside at the seat of life, and explains that were the heart not required to keep up the life of the patient, death need not take place, and would not, with the same amount of disease in any organ not constantly required to maintain life.

Roberts says, "angina pectoris or the 'breast-pang' is *supposed* to be a neurotic affection, associated with the cardiac plexus, accompanied with, according to some, spasm, and according to others, paralysis of the muscular tissue of the heart."

A majority of the cases of which he gives record have originated in connection with extensive atheromata or calcification of the coronary arteries, fatty degeneration or flabby dilatation of the ventricular walls.

Aitken thinks that it should be regarded rather as a symptom of organic disease of the heart, than as a disease by itself.

Bellingham, who is quoted by Aitken, says that the pain of angina so nearly resembles the agony of dyspnœa that he has been led to the declaration that angina is to the heart what dyspnœa is to the lungs, and has called it "dyspnœa of the heart."

Reynolds calls it "the neurotic disease," and recommends arsenic for its cure.

Jones speaks of the depressing influence of certain matters taken into

the stomach upon the heart, and mentions cases where disagreeable heart symptoms had followed the drinking large draughts of cold water, eating indigestible food; and classes tea among the occasional causes of angina pectoris.

I have thus far referred only to the authority and opinions of others. I shall hereafter draw from my own experience, when it is necessary to enforce, illustrate or corroborate the views which I may state.

During the three years of my professional intercourse with Mr. Sumner, I was a constant witness to many phases of this disease, and, in connection with Dr. Brown-Séquard, saw all treatment fail of a cure, while it is probable that our patient was indebted to morphine alone for the temporary alleviation of the terrible agony which its frequent attacks caused him.

Referring to the opinion of Jones, while Mr. Sumner never suffered from more than one attack of indigestion in his life, it was his habit to drink two cups of strong tea at breakfast, and I think he took considerable pride in his taste and skill in the selection of the best brands. He only drank it in the morning, and his attacks of angina appeared, as a rule, in the latter part of the day, frequently in the night.

I think the cause for their occurring so frequently at night during the winter of 1872 and 1873 was directly traceable to his sleeplessness, and the nervousness and exhaustion resulting therefrom.

I think I was able to trace this relation between his bodily vigor and power of endurance and the frequency of his paroxysms.

This inability to sleep well developed itself soon after the Presidential election and the death of Mr. Greeley, and as soon as he could be made to sleep nights these attacks grew less frequent.

The fact of his drinking tea was known to all his physicians, but none of the distinguished number, in this country or in Europe, ever advised him to suspend its use as a prevention of angina.

In my connection with this case, I have observed a curious fact, which it may be interesting to refer to here. I mean the unusual number of patients suffering from this disease, who, previous to Mr. Sumner's severe illness, had never supposed that they had any disease of the heart.

This fact has been referred to by newspaper correspondents, viz., that during the illness of Mr. Sumner, and especially since his death, instances of its occurrence have considerably increased, and especially among those who strongly sympathized with the late Senator.

This seemingly sympathetic cause of disease has been noticed in other cases. Probably, most physicians who have had much hospital experience have seen a case of hysterical convulsions followed immediately by several others, in women, who previously never had an attack, and in a lying-in-ward I have seen a case of puerperal convulsions act as an exciting cause of eclampsia in other occupants waiting to be confined.

I have been consulted by as many as thirty individuals, since Mr. Sumner's death, who imagined they were afflicted with his complaint. In some of these cases, there was organic disease of the heart, but in a majority of them there was no cardiac trouble at all.

Two weeks after the autopsy in Mr. Sumner's case, one of the physicians who assisted, a devotedly attached friend of the deceased, died of angina pectoris. I am informed that Dr. Hitchcock had but a few

attacks, and that, prior to Mr. Sumner's death, he had never been a sufferer from angina. I am not aware of his age, but, as I remember him the day of the *post-mortem*, he was an erect, elderly gentleman.

I have myself suffered two attacks very closely resembling, if they were not really, angina. One occurred immmediately after Mr. Sumner's death, when greatly exhausted by constant attendance at his bed-side.

Dr. Brown-Séquard, having arrived in town that evening, in response to my telegram announcing the sinking condition of our distinguished patient, heard of my illness, and kindly came to my aid. After carefully examining the heart, and finding nothing abnormal, yet he said there were present the undoubted phenomena of a paroxysm of angina. He prescribed absolute rest in bed, artificial heat applied, a sinapism over the heart, and internally wine, opium and quinine.

The pain was soon allayed, and I slept quietly until morning.

I was present the next day, at the request of Messrs. Hooper and Pierce, to witness the taking of a plaster cast of the face and head of the Senator, by Mr. Preston Powers, and to prevent any injury to the expression or features. The room was the same in which the death occurred, and its chill, together with all its surroundings, induced, I am disposed to think, a renewal of the pain. This passed off soon after leaving the house. The second came on a few days ago, while preparing this paper. It was probably produced by a re-awakening of those recollections and sympathies which were so active in the causation of the first.

While conversing with friends or physicians upon the subject of these attacks, the pain has several times become greatly aggravated; and, *per contra*, when suffering severely, if I became intensely interested in any subject foreign to myself, the pains would abate, and if my attention remained absorbed any length of time, entirely disappear. How many times physicians have noticed this fact in nervous diseases! Toothache and neuralgia afford every day illustrations.

Trousseau agrees with other later authorities in classing angina as a neuralgic disease. He says, "in spite of the numerous publications which treat of angina pectoris, the history of that complaint is not very satisfactorily known, and the various opinions which have been expressed as to its nature have thrown so little light upon the subject that he wishes, in his turn, to communicate his views upon this singular *neuralgia*."

He refers to the views which formerly ascribed its chief cause to disease of the coronary arteries, or to some disease of the heart, simply to deny that there exists any relation of cause or effect, and says that these diseases do not generally produce any neuralgic symptoms.

In the absence of appreciable structural changes found in many autopsies, and from the extreme variability of the characteristic phenomena which he describes, he concludes that angina pectoris is a neurosis, or, to use a more positive term, a neuralgia.

Brown-Séquard says angina pectoris has no "common name." On the evening of my illness, he said to a reporter at my house (they followed him everywhere during the few hours he remained in Washington that day), in reply to a question as to what angina really was, "it has no common name. It is a very painful disease, accompanied by its own characteristic symptoms, and, although it has some points of

resemblance to neuralgia, in reality it is not that disease, but is just what we see it is," and what that is, it is difficult in the face of the authorities quoted for me to say.

Brown-Séquard has more than once referred to Mr. Sumner's case, in letters to me suggesting treatment, as "our case of pseudo-angina."

Flint, for a while, made two divisions in his description of this disease, naming that form *pseudo*-angina which was not, or was supposed not to be, produced by disease of the heart, and *true* angina which was attributed to some discoverable organic lesion. In his last edition, he speaks of angina with, and angina without, disease of the heart, but in both cases calls them neuralgia.

Roberts settles down to what he calls three predisposing causes of this disease, viz., *male sex, advanced age, and high social position.*

These three causes were all present in Mr. Sumner's case.

Sir John Forbes, by diligent search, collected 88 cases, and found that only 8, or 1 in 11, were females, and that in 84 of those cases, the age was given, and that 72 of this number were above 50 years of age; 49 died suddenly, and 43 of them had unmistakable disease of the heart.

A considerable number of more recent writers in the journals are convinced that angina is essentially a neuralgic disease. Some have placed its seat in the diaphragm, others in the respiratory muscles, but most frequently its location is placed in the heart. Here, the neuralgia is said to affect the cardiac nerves given off by the pneumogastric, and radiates frequently to the nerves of the cervical and radial plexus. In patients suffering with angina pectoris, the pain down the left arm and in the left elbow is sometimes nearly as severe as that in the heart.

Mr. Sumner suffered greatly in this way. When the pain lasted any length of time, the ulnar side of his left hand would be almost paralyzed, and numbness would occasionally remain for hours after all pain had subsided.

When patients are seized with an attack, they are frequently compelled to stop where they are and remain perfectly still, taking only half an inspiration, lest any motion should prove instantly fatal.

This was not the case with Mr. Sumner. He would at times get ease by walking the floor, and was unconscious of any increase of the agony by this exercise. Sometimes, when an attack would occur in the street, or while walking, he would find relief by leaning against a tree or upon the arm of a friend, or by resting his elbows upon some hard substance upon the same plane with his shoulders. This is a usual symptom in angina. Paroxysms, as a rule, take place suddenly, are severe while they last, and terminate as abruptly as they commenced. In his case, the rule was that they were preceded by "slight murmurings" or shooting pains about the heart. I remember two instances, however, of being hastily summoned in the night, to his bedside, only to find on my arrival that the agony had all ceased. Once he told me that he "had not expected to survive until I reached him, but the moment he heard my voice in the hall, the pain was gone."

Mr. Sumner's first attack of angina, of which I have any knowledge, occurred in Paris, while undergoing that form of treatment which Brown-Séquard described "as a martyrdom, causing the greatest suffering which can be inflicted upon mortal man." He says in another

place—in a Boston lecture—"and so he passed through that terrible suffering, the greatest I have ever inflicted upon any being, man or animal." He referred to the moxa which he had applied in six different places along the spinal column of his patient.

It may be as Wood says, that this first attack originated in tenderness or irritation of the spine, and it has always been Brown-Séquard's theory that much of his sufferings, and *possibly* his death, was caused by spinal irritation.

At no time during the life of the Senator was any disease of the heart diagnosticated, and his chest had been ausculted by the best diagnosticians in this country and in Europe.

This attack in Paris came on suddenly, and with great severity. Brown-Séquard was sent for, but, having gone out of town to see a patient, did not arrive for eight or ten hours, during which time Mr. Sumner was suffering the great agony. When the Doctor finally arrived, his patient was in a state of partial syncope, pale, surface cold, and covered with clammy perspiration; pulse intermittent, feeble and slow. Large doses of morphine, sinapisms over the heart, hot mustard foot baths, dry heat applied to the body and limbs, produced reaction, while the morphia suspended the pain. Mr. Sumner had one other attack, which he described as very similar to the first, before he came under my care. The treatment was about the same, only the morphia was injected subcutaneously, producing its effect more quickly, and thus saving him much severe pain.

The history of this disease varies greatly in different patients, in its mode of attack, length of interval, and in the intensity of the agony produced. Thus, while some may be overcome by the first seizure, leaving doubt as to the cause of their death, others may survive several hundred. A patient may have one very painful and prostrating paroxysm, and may never have a second; but as a rule, others will follow, it may be, at a considerable interval, or they may occur in quick succession. There is a wide-spread, popular dread of a third attack.

At first, direct causes can be assigned, such as a great strain, exhaustion, anger, sudden fright, excitement or emotion; but as they increase in frequency, no cause can be traced. They will come on when the patient is perfectly quiet, or while asleep. The first attack since my connection with the case occurred on the evening of Prof. Tyndall's first lecture in Washington.

The bad air in the poorly-ventilated lecture-room, together with the slight shocks produced by the alternating darkness and brilliant lights during the chemical experiments of the professor, had fatigued his eyes and brain, perhaps, and, on coming out of the crowded hall, he ran a few steps to overtake a car, and immediately after taking his seat the pain came on.

Patients who are the victims of this terrible disease, instinctively avoid active exercise, such as walking against the wind, up hill or flights of steps hurriedly, or soon after a hearty meal.

The length of the interval between the attacks is governed by no law which we know anything about. In Mr. Sumner's case, a cause which would produce an attack at one time had frequently no effect when repeated. Again, a sudden turn in his easy-chair, while quietly reading at night, would start up a most tearing agony, while at other times an excited speech in the Senate, accompanied by the most forci-

ble and muscular gesticulation, would not create even the suggestion of pain. After a very quiet day at home, wholly undisturbed by exciting causes, physical, mental or moral, he has been awakened out of a sound sleep, without even a dream for a cause, by a paroxysm of pain, which would only be alleviated by large, hypodermic injections of morphia.

It is the tendency of this disease to produce death suddenly, and, as a rule, by collapse. Next to the fearful pain, one of the most characteristic symptoms is a sense of impending death; and this foreboding intensifies with the number of seizures.

It is said of John Hunter, who was a terrible sufferer from angina, that he declared to his class "that his life was in the hands of any person or circumstance which should act powerfully upon his mind," and, in fact, he ultimately died in St. George's Hospital, from strong but suppressed feelings upon a point in which he was greatly interested. John Leach, of the London Punch, died, after several attacks of angina, at the age of 54.

A very unpleasant feature of this disease is the knowledge that one is at the mercy, so to speak, of unfriendly circumstances, coupled with the uncertainty of obtaining successful medical treatment.

The patient becomes aware, after a time, that he may be fatally attacked at any moment, and this sword of Damocles suspended constantly over his head, together with the pain and the necessity to momentarily regulate his actions and emotions, renders his life such a burden to him that he is not unwilling for it to fall, and cut asunder his slender thread of life.

Mr. Sumner has remarked to me several times, "Dr. Johnson, this *treacherous* disease produces in my mind a positive uncertainty, when I go out of my house, whether I shall ever enter it again a living man, and, with the pain I have to suffer, makes my life such a burden that the sooner it does its work the better I shall be pleased. Life, at the price I have to pay, is not worth the having."

Mr. Sumner had, probably, as many as an hundred of these attacks. At first, a distinct cause could be assigned for each recurrence. The interval between them varied in length from two years to twenty minutes. After they began to take place more frequently, they seemed to lessen in severity.

Mr. Sumner dined, uniformly, at six o'olock. His usual hour for retiring was twelve. It has been urged by some non-medical, and, therefore, incompetent judges, that during his fatal attack "the late Senator was a great sufferer from indigestion, and that he really died for the want of an emetic." The truth is, that his digestion was remarkably perfect. He frequently said to me, and to others in my hearing, that he "could eat any and everything with absolute impunity, except lobster, and this article of diet gave him the only attack of indigestion which he ever suffered since the time of his boyhood, when he ate green apples and sour grapes."

Angina occurs, as a rule, very abruptly, and terminates as suddenly as it begins. With Mr. Sumner, slight, shooting pains through the heart, and down the left arm would often precede an attack. Later, he suffered more frequently at night than in the daytime. He was never able to exactly describe the pain. He would say "that it seemed much like the sudden grasp of a cold hand, which gradually tightened, until it felt like a clasp of steel crushing his heart to atoms."

Da Costa makes use of this same expression. He says "its main feature is an agonizing pain in the præcordia, as if the heart were being firmly grasped by an invisible hand, or, as it were, being torn to pieces." He remarks, further on, by way of assisting us to a pathological solution of this mystery, that the immediate conditions upon which the symptoms of the attack depend, lie veiled in obscurity. Other authors say we do not know what the precise causes of this angina are, but we do know that they occasion paroxysms of the most intolerable anguish.

One author goes so far as to say that the pangs of angina are greater than those of child-birth, and much harder to bear, inasmuch as the anticipated result in one case is the addition of a life to the world, while in the other, the probable result is the death of the sufferer. So far as my experience goes, there is no pain which compares with that in angina pectoris, and few cases, if any, combine so much real physical agony with such keen anxiety concerning the final result.

I have not much to say of its treatment, for the reason that we know so little of its causes or pathology. The fact is we do not know what to treat.

Niemeyer says, "it is doubtful if it be in our power to relieve the paroxysms of angina pectoris by any means of medication." He declares that opiates and other narcotics are to be avoided. The weight of authority, however, you will find to be decidedly in favor of morphia in some form, administered in such a way as to accomplish its result most speedily.

Hypodermic injections of some of its preparations have been entirely effective, in my hands, in controlling the pain, and produce, so far as I know, no more disagreeable after-symptoms than when administered for the relief of other painful affections. Sinapisms applied over the region of the heart, friction of cold hands, limbs and feet, hot mustard pediluvia and dry heat, in cases of syncope or collapse, with the usual arterial and diffusible stimuli, combine about all the most useful remedial measures which may be prescribed during an attack.

During the interval, if the cause be known, or can be ascertained, it should be treated upon the same principles which would be indicated were there no angina, and in any case all known aggravating habits or circumstances should be avoided, and great care used to keep up the general tone and power of the circulatory, nervous and digestive systems.

Wood, in the last edition of his materia medica, only a few months ago published, speaks of the nitrite of amyl, and of its pretended specific influence in this disease. After referring to its being first suggested by Dr. Lauder Brunton, in an article published in the *London Lancet*, 26 July, 1867, and reprinted from the London Clinical Society's Reports, vol. iii., goes on to say, "the pathology of these cases of 'heart-pang' is not definitely made out, and so it seems useless to speculate how the nitrite acts in many cases, but there is now abundant evidence of its value in relieving, almost instantly, agony which has resisted all other treatment."

This remedy was faithfully and repeatedly made use of in Mr. Sumner's case, on the suggestion of Dr. Brown-Séquard, without any amelioration of his sufferings. The bichloride of methyl was also used without any good results. I cannot speak with any positiveness of

the general usefulness of these two remedies, as my experience with them does not extend beyond this case.

The following is a copy of my despatch to Dr. Brown-Séquard, written at Mr. Sumner's bedside:—

{ Washington, D. C., Senator Sumner's House, 6, A. M., 11th March, 1874.

{ Dr. C. E. Brown-Sequard, 18 East 29th St., New York City.

Mr. Sumner had a very severe attack of his angina at 9, P.M. I applied the remedies heretofore successful, and, after one repetition in half an hour, he became quiet and slept. Then came a fearful attack of terrible pain in the heart, followed soon by great prostration, cold, clammy surface, from which he has not up to this hour revived, and his pulse is growing very weak, hardly perceptible at the wrist. Heat externally applied, and brandy and ammonia internally, do not produce reaction. Tracheal and bronchial râles are very loud, and he is gradually sinking; eyes glassy and vision dim. Mr. Sumner has been your patient for fifteen years or more, and I hope you will come at once to him. Answer. Jos. Taber Johnson, M.D.

A reply came before 9 o'clock, addressed to Mr. Sumner's private secretary, that he should leave on first train.

The following despatch was received by me about 11 o'clock.

{ New Brunswick, N. J., 9¼, A.M., 11th March, 1874.

{ Dr. J. Taber Johnson, At Senator Sumner's House, Washington, D. C.

Apply galvanism round chest, on insertion of diaphragm.

Brown-Sequard.

The condition of the patient had by this time become so hopeless, that it was decided, by the Surgeon-General and Dr. Lincoln, whom I had called in consultation at the time of telegraphing Brown-Séquard at 6, A.M., to be utterly useless, and as it was thought that the effort of being moved in the bed might prove instantly fatal, it was never used.

Mendacity of Quacks.—The *Pacific Medical and Surgical Journal* speaks as follows:—

If Satan has ever succeeded in compressing a greater amount of concentrated mendacity into one set of human bodies above every other description, it is in the advertising quacks. The coolness and deliberation with which they announce the most glaring falsehoods are really appalling. A recent arrival in San Francisco, whose name might indicate that he had his origin in the Pontine marshes of Europe, announces himself as the "Late examining physician of the Massachusetts Infirmary, Boston." This fellow has the impudence to publish that his charge to physicians in their own cases is $5.00! Another genius in Philadelphia, of the bogus diploma breed, who claims to have founded a new system of practice and who calls himself a "Professor," advertises two elixirs of his own make, one of which is for "all male diseases" and the other for "all female diseases"! In the list of preparations which this wretch advertises for sale as the result of his own labors and discoveries, is *ozone!*

Progress in Medicine.

REPORT ON PATHOLOGY AND PATHOLOGICAL ANATOMY.

By R. H. Fitz, M.D.

Pathology.

"Waxy Degeneration" of Muscular Fibre.—Dr. Weihl (*Virchow's Archiv*, 1874, p. 253) gives the results of a series of observations concerning this condition, first mentioned by Bowman in 1841.

The term was applied by Zenker, in 1864, to that condition of striated muscular fibre where the contents of the primitive fibril are converted into homogeneous masses of varying form and size, possessing a dull, waxy lustre. These masses are quite brittle, and do not essentially differ, chemically, from the contents of normal muscular fibre. He regarded this change as a nutritive disturbance, produced by fever, and due to the rapid reception of new material by the contractile substance. It was observed in typhoid and scarlet fevers, acute miliary tuberculosis, cerebro-spinal meningitis, articular rheumatism, tetanus, &c.; also in the arms of an insane person who had been confined in the straight-jacket. Other observations, before and since, show that this condition has been seen in almost all febrile diseases, in cases of injury, and in the vicinity of morbid growths.

Its origin has been regarded by some as purely mechanical; others considered that the process consisted in a coagulation of the myosine, with subsequent contraction. The change has also been viewed as merely a *post-mortem* one. Cohnheim, however, found it in the tongue of the live frog twenty-four hours after the local supply of blood had been cut off, and quite independent of any direct mechanical violence.

In Weihl's experiments, the frog was used, and it was ascertained that changes resembling, and probably identical with, those of "waxy degeneration" could be produced in the tongue of the live frog in various ways. Since they could be produced voluntarily and immediately, it seemed evident to him that they could not be regarded as a degeneration or as an inflammation. He further considered them as probably due to a coagulation of the contractile substance of the muscle.

In this connection, the investigations of Popoff (*Centralblatt*, 1873, No. 44) are interesting. He observed the effect of polarized light on muscular fibre. The double refracting substance of the muscular fibre was not altered by the "waxy degeneration." He concludes that this change in infectious diseases is rather an appearance accompanying other signs of inflammation of the muscular fibre than an actual process of degeneration.

Fatty Degeneration of the Heart caused by Anæmia.—It is now long since Virchow called attention to the anatomical peculiarities of that form of anæmia to which the term chlorosis is applied, and within a recent period he has again referred to this matter. He regards it as very probable that regularly in such cases there exists, congenitally, a lack of development of the vascular apparatus, especially of the heart and aorta; so that, at the outset, these are abnormally small, and are subject to pathological changes, fatty degeneration, &c., at a very early period.

Cases have been recorded where an extreme degree of anæmia has arisen and terminated fatally, the only evident lesion being a fatty degeneration of the heart. Gusserow was among the first to call attention to this condition, and reported (*Archiv für Gynäkologie*, 1871, p. 218) five cases where an extreme degree of anæmia developed during pregnancy, apparently without cause, and terminated fatally. In three cases, the heart was found to be fatty degenerated. Biermer soon after called attention to this "progressive pernicious anæmia," and distinctly separated it from simple anæmia. He spoke of its clinical aspects, the pallid skin, the œdematous feet, hands and face, the debility, dizziness and palpitation. There was loss of appetite and occasional diarrhœa. Attacks of fever were noticed, though of no tpyical character. An anæmic souffle was heard, often so loud as to suggest valvular disease. Capillary hæmorrhages occurred in the retina and skin, more rarely in the kidneys. Minute cerebral hæmorrhages were suggested by slight and temporary paralytic attacks. Dropsical effusions occurred towards the close, and intervals of delirium.

Notwithstanding the excessive anæmia, there was no diminution in the amount of fat. The only anatomical changes were the fatty degeneration of the heart and the hæmorrhages. He considered the frequent presence of intestinal catarrh a cause of the anæmia.

Ponfick (*Berliner Klinische Wochenschrift*, 1873, No. 1) regarded this subject from an anatomical point of view, and called attention to a peculiar form of spotted fatty heart, of normal dimensions and with healthy valves, which occurred more particularly in females, from the twentieth to the fortieth year, and which was associated with a marked degree of anæmia. To this, he applied the term anæmic fatty heart. The alterations of the bloodvessels found by Virchow in chlorosis were at times present, but to a slight degree. Changes in the other organs of the body were of relatively trivial importance and were apparently secondary. The gland cells of the liver, kidneys and stomach presented a greater or less degree of fatty degeneration. Jaundice was frequently present. The total amount of blood was apparently diminished, the red corpuscles decidedly so; likewise the fibrine. Evidence of dropsy was almost constant, as hydrothorax, anasarca or ascites. Ponfick found that these conditions occurred in women with protracted convalescence after delivery, in cases of acute disease, in chronic gastric or intestinal affections with exhausting diarrhœa, and, finally, in persons who had suffered from the loss of blood.

Immermann (*Deutsche Archiv für Klinische Medicin*, 1874, p. 209) regards the disease as different from other forms of anæmia, owing to the lack of a sufficient cause; its excessive degree and union with alterations of the organs of circulation; the occurrence of fever without an anatomical basis; its progressive character and fatal result. He considered that the absence of emaciation was of great value in the differential diagnosis. Ponfick, in several instances, from the extreme pallor of the corpse, or of an organ, was able to anticipate the fatty condition of the heart. Immermann considers the disease to be allied rather to chlorosis and leucæmia, though in no way to be identified with either. It lacks the splenic and glandular swelling of the latter, and is distinct from Addison's disease in that there is no discoloration of the skin. From acute albuminuria, it differs in that there is little or no albumen in the urine.

Its etiology is exceedingly obscure. Immermann calls attention to the occurrence of the greater number of cases hitherto reported in a limited district, the canton of Zurich, and lays weight upon this fact, though unable to recognize an essential or specific cause. Other cases have occurred elsewhere, however, at Dresden and Heilbronn, and the etiological value of a limited local disposition must be regarded as slight.

Perl (*Virchow's Archiv*, 1874, p. 39) endeavored to prove, experimentally, that anæmia resulting from loss of blood would give rise to this form of fatty heart. Dogs were used, a certain number being bled a few times, but to a large extent each time. From the others, small amounts of blood were drawn frequently. The animals of the first series gradually fell into a state of marasmus, lost their appetite, became debilitated and finally died from exhaustion. In some instances, œdema occurred; there was no evidence of fever. The heart showed generally a fatty degeneration of the muscular fibres, most marked in the papillary muscles. The dogs, from whom small quantities of blood were frequently drawn, recovered, were killed, but their hearts were apparently unaltered.

(To be concluded.)

Dr. Snow, the Superintendent of Health and City Registrar of Providence, expresses, in his report for September, the following views concerning typhoid fever:—

"It is a common opinion, very frequently stated, and very generally accepted, that the foul emanations from sink drains, cess-pools and privy vaults are one of the most important, if not the chief cause, of typhoid fever. My observation does not confirm this theory. The disease prevails much the most in the country, where, if these emanations exist, they are largely diluted by the free circulation of air, while thousands in the city who breathe the foul air from these sources constantly, are *comparatively* exempt from it.

"Again, the cases of typhoid fever in this city are as often in the comfortable and cleanly dwellings as in the poor and filthy. Of the decedents in September, five were of American and four of foreign parentage; of the 667 decedents from typhoid fever in seventeen years—1856 to 1872—there were 370 of American and 297 of foreign parentage.

"Again, I have known some marked instances of severe typhoid fever, evidently caused by decomposing vegetable matter, with no aid of sink drains or other nuisances. In one instance, several families in one house had typhoid fever, apparently caused by thirty bushels of rotten potatoes in the cellar.

"I think that typhoid fever is caused chiefly by the decomposition of vegetable substances, and that for this reason, it is far more prevalent in the country than in the city."

Cremation a Cause of Indian Cholera.—The remarkable statement is made, in a recent number of the *Belgic Abeille Médical*, that the immense number of corpses burned by the Hindoos, who are compelled by the worship of Brahma to burn their dead, is the real cause of Asiatic cholera. The poisonous gases generated in this way hover in the air during the day, but at night sink into the lower atmosphere, mixing with the water and various kinds of food, and permeating the lungs in the process of respiration. In Hindostan, the Asiatic cholera is endemic, yet, subject to certain influences in the atmosphere, it becomes epidemic, and then causes ruin and destruction in the remotest countries.—*The Clinic.*

Bibliographical Notices.

The Physiology of Man. By AUSTIN FLINT, JR., M.D., In five volumes. Vol. V. Special Senses: Generation. New York: D. Appleton & Co. 1874. 8vo. Pp. 517.

THE present volume is the fifth and last, and also in some respects the best, of the author's series of physiological text-books. In criticizing it, it is proper to bear in mind a difficulty to which the author alludes in his preface as attending the preparation of such a work in this country, the difficulty, namely, of getting access to original publications, owing to the want of complete libraries of special subjects in America. The danger of quoting at second hand has impressed itself upon the writer, as it must upon every one who attempts to exhaust the literature of any subject. A noticeable improvement on the earlier volumes is to be found in the increased number of citations of German authorities, and though these are often taken from French translations, still it is evident that Dr. Flint has, in preparing the latter volumes of the series, acquired a much greater familiarity with German physiological literature than he possessed when engaged on the earlier part of the work.

The volume begins with a chapter on touch, including a short and rather confused discussion of the muscular sense. According to the author, "the weight of evidence is decidedly in favor of the view that there is no distinct perception of muscular action, aside from general sensibility, that can properly be called a muscular sense." Yet in the next paragraph we read that our appreciation of differences of weight "is chiefly due to the sense of resistance to muscular effort, and has little dependence upon the sense of touch."

The second chapter, on the olfactory nerves and their function, is a good *resumé* of our knowledge of this least understood of all the special senses.

The chapters on sight and hearing, which occupy nearly half the volume, can scarcely be regarded as satisfactory, considering the precision with which these subjects are capable of being treated and *are* treated in such works as those of Helmholtz. Of course, an exhaustive treatment like that of the latter writer is not to be expected in a general text-book; but carefulness of preparation and accuracy of statement may fairly be demanded of a writer who seeks to give instruction on these questions. That the author has failed entirely to comprehend the theory of color as expounded by Young and Helmholtz, is evident from his statement that when colors are mixed on the retina by means of a revolving disc, "the resultant color appears precisely as if the individual colors had been ground together."

The physiology of taste is exceedingly well discussed, and the reasons for accepting the view of Lusanna, that the lingual nerve owes its gustatory function to the anastomosing fibres of the chorda tympani, are clearly and forcibly given.

The last half of the volume is devoted to reproduction and development. The description of these processes is, as a rule, clear and concise, and is illustrated by judiciously chosen figures, the somewhat complicated development of the genito-urinary apparatus being admirably elucidated by means of an excellent plate borrowed from Henle's Anatomy.

The value of the volume is greatly increased by a general index to the whole work.

On the whole, it may be said of this series of text-books that, though they contain a great deal of valuable information on physiological subjects, given in an agreeable and easy manner, yet, owing to a want of familiarity of the author with many of the most important contributions to modern physiology, they cannot be regarded as fulfilling the object which the writer had in view, viz., "to represent the existing state of physiological science."

B.

The Complete Handbook of Obstetric Surgery. By CHARLES CLAY, M.D. Philadelphia. 1874. Pp. 328.

IN this volume are arranged, alphabetically, brief accounts of the various emergencies which may occur in obstetric practice, with short rules for the treatment suitable in such case. The only possible use to which such a book can be put to advantage, is for the purpose of cramming students for examination, for it cannot be conceived that the author would seriously advise a practitioner of medicine to carry such a book about with him in his practice.

For practical purposes, the work is too concise, and the rules presuppose a knowledge of obstetrics which would render the use of the book unnecessary. Imagine, for example, a physician attending a case of labor and his patient is suddenly seized with convulsions. Out of his pocket comes this Handbook, and, under the head of convulsions, he finds this advice:—"If convulsions continue after delivery, try chloroform, opium, sol. antim. tart.; if coma, try leeches, ice-cap, blisters, &c." The patient would stand a better chance, it seems to us, in the hands of a physician who did not depend, in times of emergency, on such a *vade mecum*. Seriously considered, the matter is altogether too condensed and in some respects behind the times, as, for example, the rules for version, presentation of breech (in which latter case, by the way, the author advises the doctor to announce a *cross birth* [?]), &c.

The book may find purchasers among students, but it is to be hoped that the profession will not depend on such pocket-guides to methods of practice.

A Practical Treatise on the Diseases of Women. By T. GAILLARD THOMAS, M.D. Fourth Edition. Philadelphia. 1874. Pp. 801.

THE appearance of the fourth edition of this work so soon after the third, would of itself attest the value which gynæcologists have placed upon this admirable treatise on the diseases peculiar to women. The book has been already translated into German, and the present edition is in process of being translated into both French and Italian.

In yielding to the demand for a new edition, Dr. Thomas has not suffered the opportunity to pass of still further adding to the value of a work which has always been highly esteemed by the profession. The present volume, while it contains much that is new, has been kept within the limits of the earlier editions by the omission of portions which later investigations have proved to be either imperfectly or incorrectly stated, and by the condensation of much which is thus greatly improved.

A large part of the book has been re-written, as, for example, the two chapters on Ovarian Tumors and Cysts, which, in this edition, take the place of the four chapters in the edition of 1872, which were devoted severally to Ovarian Tumors, Peri-uterine Fluid Tumors, Solid Tumors of the Ovary, and Composite Tumors of the Ovary. The chapter on Ovariotomy has been altered to correspond with the latest changes in the operation, especial stress being laid on the great value which the author attaches to the use of the drainage tube.

The chapters on misplacements of the uterus have been greatly condensed, while at the same time they contain much that is new and far in advance of the ideas contained even in the third edition. A chapter on Sarcoma of the Uterus has been added, and that on Cancer of the Uterus greatly altered. The influence of ovarian disease in the production of dysmenorrhœa has been recognized by the introduction of a section on Ovarian Dysmenorrhœa.

Many of the illustrations which are to be found in the earlier editions, having been deemed superfluous by the author, have been omitted, while others, though retained, have been greatly improved, as, for example, the substitution of a number of carefully drawn wood-cuts (fig. 42, 66, 75, &c.) in the place of the mere outline drawings. A large number of new illustrations have also been added.

It will therefore be seen from this brief notice of the book that, in many respects, the present edition is a great improvement on those which have preceded it, and which were themselves acknowledged by all gynæcologists as among the ablest treatises on the subject.

The Medical Register and Directory of the United States. By SAMUEL W. BUTLER, M.D. Philadelphia. Office of the Medical and Surgical Reporter. 1874. Pp. 854.

THE directory has at length appeared, and is, on the whole, a very creditable work. The amount of labor involved must have been very great, and, as far as we have seen, there are few mistakes. The States are arranged in alphabetical order, and the list of the practitioners in each is usually preceded by that of those in one or more of the larger cities. The medical institutions, hospitals, schools, societies, &c. are briefly mentioned. The geographical and hygienic peculiarities receive attention; and analyses, stated to be reliable, are given of the waters of the various mineral springs.

The only serious criticism we have to make is that the book tells us too much. The list should have been limited to the names of members of the regular medical societies of the respective States. In looking over the list of Boston physicians, we see many names which we are mortified should appear between the same covers as our own.

Surgical Emergencies; together with the Emergencies attendant on Parturition and the Treatment of Poisoning. A Manual for the use of General Practitioners. By WILLIAM PAUL SWAIN, F.R.C.S., Surgeon to the Royal Albert Hospital, Devonport. Philadelphia: Lindsay & Blakiston. 1874. 8vo. Pp. 189.

"THIS manual," says the author, "pretends to be little more than a compilation from the best and most recent works on surgery." It *is* little more. That little more consists, first, of the little arts acquired in hospitals, what we may call *knack*; and, second, in the introduction and discussion of topics, which, however important in themselves, can hardly be called *emergencies*. Such, for example, is the chapter on Lister's antiseptic treatment, a method whose elaborate details have been one of the confessed causes of its non-employment in large hospitals. So, again, a long tabular view of the differential diagnosis of intra- and extra-capsular fractures of the femur, would hardly be consulted by the general practitioner when first called to treat a fall upon the hip, in an old person. We have known old people perish of diagnosis, and succumb to too prolonged manipulation in young and zealous hands. It is very questionable, too, whether Esmarch's bloodless method can be always safely resorted to in haste and in emergencies. The treatment of fractured clavicle by a steel cuirass and screws (vide p. 47), can hardly be called the treatment of emergency, even if a broken collar bone could be classed as a grave accident.

In speaking of treating fractures of the lower extremity by extension by weight, we are told to carry the long extension strips up to the knee, but nothing is said of the necessity of going above the joint to relieve the strain on the articulation. We are also told (p. 174), "the amount of weight must vary with the age of the patient, it being estimated that a pound should be allowed for every year up to twenty."

A delicate child of 12 years, with twelve pounds attached to his leg, below the knee, or even a vigorous youth of 20, with twenty pounds of similar extension, would require more counter-extension, we think, than the author directs, viz., "that the bed should be raised at the foot to prevent the patient being pulled down by the weight." Besides being far more power than is required, this amount of badly applied extension would be productive of great suffering.

The author's treatment of puerperal convulsions is active, but not that usually followed here. We give the paragraph at length:—

"Puerperal convulsions present all the ordinary features of epileptic convulsions. The treatment is: 1. Evacuate the contents of the bowels freely with scammony and jalap; 2. Shave the head, and apply ice, or evaporating otions; 3. Empty the bladder, or, at any rate, pass the catheter to be sure that it is empty; 4. Wait until the os is sufficiently dilated, and then apply the forceps and deliver the child as soon as possible. Chloroform should be

given, both to allay the violence of convulsions, and also to facilitate the delivery; 5. Give chloral hydrate in thirty-grain doses. If the patient is unable to swallow, administer it by the rectum. If the uterus is rigid, and the labor does not advance, the convulsions being constant, perform craniotomy."

The treatment for cut-throat is judicious. In operating for strangulated hernia, the author always tries first Petit's method of reducing without opening the sac. This procedure is open to grave doubts in the minds of many surgeons. His remarks on the dangers of over-use of the taxis in any rupture and of opening the sac in umbilical hernia are, however, excellent.

This book has many other good points, culled from practical surgeons, such as Hilton's method of opening deep abscesses, &c. It may be very useful as a ready remembrancer to the general practitioner, or even the professed surgeon. But the great fault of all condensed treatises is that some illustrative point is apt to be left out. What is made clear to the mind of the author by conciseness may not be so clear to the average reader. After all, the treatment of emergencies must depend on coolness and on common sense—two qualities which books cannot give. We have often thought that the best lesson taught by country practice is self-reliance. With the possession of that and an education, the general practitioner does not need this book, though it was for him it was ostensibly written.

In the chapter on poisons, we notice some space is devoted to restoring life after chloroform poisoning, but no mention is made of ether—a tacit admission of its safety. The book is handsomely printed and illustrated. The originals of the illustrations of reducing dislocation of the hip by manipulation, we think, would be found in Boston. D. W. C.

BOOKS AND PAMPHLETS RECEIVED.

History of the Portland School for Medical Instruction. An Address at the Dedication of the new School Rooms. By Israel Thorndike Dana, M.D. Portland. 1874. Pp. 33.

Archives of Dermatology. A Quarterly Journal of Skin and Venereal Diseases. Edited by L. Duncan Bulkley, A.M., M.D. October, 1871. Vol. I. No. 1.

Transactions of the Medical Society of the State of Pennsylvania. 1874. Pp. 454.

Address on Obstetrics; delivered before the Medical Society of the State of Pennsylvania. By Wm. B. Atkinson, M.D. 1874. Pp. 43.

Injuries of the Skull. By C. C. F. Gay, M.D., Surgeon to the Buffalo General Hospital. Pp. 11.

The Building of a Brain. By E. H. Clarke, M.D., Boston. James R. Osgood & Co. 1874. Pp. 153.

The Medical Register and Directory of the United States. By Samuel W. Butler, M.D. Philadelphia: Office of the Medical and Surgical Reporter. 1874. Pp. 835.

SUBCUTANEOUS INJECTION OF QUINIA.—Dr. F. D. Lente, who has recently published a paper upon the hypodermic method of administering quinine, suggests the following mode of preparation for the solution:—

℞. Quiniæ disulphatis, gr. cccc.;
Acidi sulphurici, m. xxxij.

Rub up the quinine and acid, which latter should be evenly distributed over the quinine, *very thoroughly*, until the two are *intimately* and *uniformly incorporated together*, if it requires an hour. Place in a porcelain dish, over a spirit lamp, add distilled water, fl℥viij., stir with a wooden spatula until the solution becomes clear. Filter through paper into a bottle, and add acidi carbolici liq., alcohol, aa m. xvi. This solution should remain clear, and free from crystallization, at ordinary temperatures, for any length of time.—*New York Medical Journal.*

Boston Medical and Surgical Journal.

Boston: Thursday, October 15, 1874.

The introductory lecture to the regular winter session of the medical department of the University of the city of New York was delivered on Tuesday, September 29th, by Dr. John C. Draper, the subject of his discourse being the Relations of Chemistry to Medicine. The history of chemistry is given, in a short sketch, from the earliest times down to the present day, and the lecturer points out the fact that the various advances in chemistry have been the result of attempts, on the part of the ablest physicians, to render themselves more skilled in the art of healing the sick. The work which is now going on in other countries, in this and other branches of medical science, is alluded to in glowing terms, and the contrast which our own schools afford to the present centres of medical learning and science in Europe is presented so forcibly by Dr. Draper, in his concluding remarks, that we are glad of the opportunity to present them to our readers.

"Such being the present relation of chemistry to medicine, may we not well be ashamed of the scanty provision made in American medical colleges for the cultivation and advance of this science? The poverty of chemical and physiological research among American physicians has made us a by-word and a reproach among the nations of Europe. These nations, which in our youth and arrogance we regard as being effete or moribund, nevertheless have the energy to establish great and costly laboratories for chemical and physiological inquiry and investigation in connection with their schools of medicine. Not only are laboratories and apparatus supplied by government or by private endowment, but the professor is relieved from all concern regarding the necessities of life by a salary which, for the country, affords an ample sustenance. Here, on the contrary, he must not only earn his bread, but furnish his own laboratory and apparatus. Can we wonder that under these conditions there is so little result?

The want of proper facilities and endowment among American medical colleges must, to the thinking mind, be an evidence of the apathy of American physicians to their own true interests. While money is freely given to theological, academic, agricultural and technical institutions of every kind, not a single medical college has as yet received the funds which might enable it to perform its work in a proper manner. Society demands a high standard of its physicians, and punishes their neglect or malpractice with the severest penalties known to the law; yet what has it done to aid either in the advance or diffusion of medical knowledge? While every wild scheme or idiotic ism finds numerous supporters, who are willing to pledge their purses in their behalf, medical colleges, with few exceptions, have an uncertain tenure of life, and even the best are trammelled for the want

of means to do their work properly. It is not that there is a lack of liberality in the community, nor is it a failure to appreciate the properly educated physician. It must be that physicians themselves are at fault, and the community errs because it has not yet been instructed in a matter which is of the utmost importance to its own well-being and prosperity. Feeling the necessity of some action in this matter, the alumni of the medical department of the University of New York have established the nucleus of an endowment for their Alma Mater. That this may increase, and be applied in a manner to aid in the advance of medical science, is the earnest wish of all who have her welfare at heart; and, with the aid of her sons, the time cannot be far distant when this desirable result will be attained, and proper laboratories for chemical, physical and physiological research and instruction be opened freely to all who have been so educated as to avail themselves of their advantages."

We have already called attention to the liberal manner in which the citizens of Philadelphia have responded to a call from the Medical Department of the University of Pennsylvania for aid, and we are glad to see that the profession in New York is alive to the needs of the hour. We hope to find that the success which has attended these two movements will not only open the eyes of the profession to the needs of our medical schools, but also prove to them that they are not without influence sufficient to bring out liberal contributions for the support and improvement of a much needing and much neglected branch of education. It should be the aim of every good medical school not only to disseminate a knowledge of medicine among those who intend to become physicians, but also to contribute its share to the advancement of medical science.

In this country we have been accustomed, and, alas, content, to look upon our schools as machines from which a certain number of raw medical students are turned out annually, and not as centres of medical learning through which our knowledge of the healing art may be continually increased.

This is indeed an important and extensive field for those of our liberal minded citizens to work in who are willing to assist a much neglected department of education.

Of the modern follies, prize babies are specimens. They prove nothing, except the possibility of feeding to excess. You can make heavier pigs in the same length of time, and with much less trouble. At a late Agricultural Fair in Sheldon, Vermont, we are informed that three prizes were offered. The first was fifteen dollars for the heaviest, *apparently* healthy baby. Two other prizes were respectively five and three dollars each. The children to be considered as candidates, we are told, were to be not over a year old, and ten months was to be considered as a better age. The law cannot step

in and put an end to such folly, but common sense ought to. To begin with, the weight of a young child is no evidence either of its future size, in case it lives, or of its ability to withstand disease. If it were, the better way would be to give the prize for the heaviest new-born infant. We know that the smallest children at birth often become the largest in after years. In the next place, the children who are the heaviest at one year of age, are often those who have been fed upon improper food; food which, by the second summer, when dentition is somewhat advanced, the stomach refuses to digest, and either rejects by vomiting, or, worse, by diarrhœa. In the former case, they are lucky, as they are sometimes spared frequent trials of the same. What becomes of this heavy, over-fed, sick baby? If it is fortunate in having common sense put in its mother's way, it may get well. If the same course be continued, why, it may be fortunate enough to die in its first attack of convulsions; or it may be a little less fortunate, and live to brave several attacks; or, again, a short hydrocephalus; or it may, unfortunately, linger through suffering childhood, a sickly youth, and become a burden to itself, and a dyspeptic nuisance to all its friends.

If the officers of County Fairs would offer prizes for the most healthful population to be found in any of their towns, at the age of twenty-one, they might do some service. If they would offer prizes to the towns where there is the least typhoid fever, and the least dysentery, it might be of some use. If they would give any surplus fund as prizes for properly-constructed drains, which would not deposit their filth under their windows; if they would reward their friends for introducing properly-constructed earth-closets, and using them properly; if they would spend their money in pointing out the advantage to health of removing their stables from their houses, or in showing adults how much they might gain in health and strength by feeding on meat and vegetables, instead of pies and doughnuts, the result would be a more healthful country population than we now find.

With all the follies of city life, observation shows us that our city girls are in better condition, as a rule, than country girls in New Hampshire and Vermont. They are more ruddy, they can endure more, are less anæmic, and quite as long-lived.

To return to prize babies: What does size prove, either in the matter of health or life? Absolutely nothing. We can recall, in our own limited experience, enough cases to satisfy us that this statement is correct. A friend says that the offering a prize for the biggest baby is only a joke. Let it be only a joke. But the means taken to get up the play are the means of producing disease and death. There are better ways of affording amusement than trifling with future health and happiness.

WHISKEY AS AN ANTISEPTIC DRESSING.—In a paper on this subject, in the *Philadelphia Medical Times*, Dr. J. L. Suesserott relates the following interesting cases:—

Charles E., aged 60 years, a carpenter, about two years ago had his right forearm terribly lacerated by coming in contact with the revolving head of a planing-machine. The integuments and muscles of the back part of the forearm were torn in shreds; the limb was placed on a splint, the torn tissues were restored as nearly as possible to their places, kept *in situ* by isinglass-plaster, and supported by compresses saturated with strong whiskey. In two weeks from the time of the accident, no suppuration having taken place, the splint was removed and my patient was at his work. About a year after this occurrence, the same patient had the back of his left hand thrown into the same machine. The result was that the articular ends of the second and third phalanges of three of his fingers were entirely knocked out, leaving the fingers hanging by the flexor tendons. Deeming it impossible to save more than a stump of the hand, I was about to remove the dangling digits, against which procedure the patient strongly protested. Sympathizing with the now twice unfortunate man, and desiring to let the realization of the full extent of his maimed condition break upon him gradually, I procured three small splints, upon which I carefully laid the, as I was fully persuaded, lifeless fingers, secured them with isinglass-plaster, and placed the whole hand upon a heavy straw-board splint, with the full assurance, in my own mind, that even with the deodorizing effect of whiskey, by the next day my very hopeful patient would be satisfied of the propriety of their removal. The part, or, I might more truly say, the whole hand, was kept saturated with my favorite fluid for external use, and, much to my surprise and gratification, on the following day I found the circulation re-established. The fingers were kept on small splints to prevent too much shortening. Granulations repaired the lost soft tissues almost entirely, and, the metacarpo-phalangeal articulation not having been injured, I had the extreme pleasure, at the end of four weeks, to see my patient, who, by the way, is a man of strong nerve, hard at work, with a very useful hand.

About the time of the first accident to this patient, Charlie W., a lad of about 12 years of age, ran into a mowing machine. His left foot was cut off just at the top of his shoe, and the right one, it having been elevated in the act of running, was taken off through the tarsal bones. Assisted by Dr. E. N. Sensery, of Chambersburg, Pa., I shortened the bones of the left leg so as to procure sufficient covering, but we both concluded that by the removal of the cuboid bone of the right one we might hope to save the heel, and make the limb more useful; leaving it as in Chopart's or Symes's amputation. Even after the use of strong ligatures and contracting bands, we were not able to bring the tissues together, but were compelled to leave a surface of two and a half or three inches entirely exposed. Into this we packed patent lint, well saturated with whiskey, satisfied that, with some suppuration, we might hope for a full repair of the parts. Suffice it to say that in an incredibly short space of time the parts were healed, without any want of covering to the stumps, and with the loss of not more than *one fluidounce of pus from both limbs*. Of this latter fact we are confident, as we did all the dressing ourselves.

REVILLOUT ON THE DIFFERENTIAL DIAGNOSIS OF DISEASES OF THE STOMACH.—The *London Medical Record* of Sept. 23, 1874, contains an account of an article in the *Gazette des Hôpitaux* on gastric diseases. Dr. Revillout criticises the statements of Trousseau and of Cruveilhier regarding these maladies, and shows that these authors are often at variance with each other and that neither is perfectly accurate. Dr. R. says that the symptomatic physiognomy, or totality of symptoms, in cancer and in simple ulcer of the stomach, is in general extremely different. When the cancer is limited to the stomach itself, we do not generally meet with dorsal pain, even when vomiting has been going on for some time, and the patients suffer acutely. This

is true, at least for the major part of the duration of the disease. Two typical cases of cancer, and three of ulcer of the stomach, are reported. In both classes of cases, there was vomiting, but one kind had no pain in the back; the patients complain of the stomach only, and there their sufferings are very acute, but there is no tendency towards the pain in the back; these are the cases of cancer. The others have dorsal pain quite as severe as the epigastric, and on the same plane with this—or, to speak more accurately, the two pains are really one and the same—and the patients compare the pain to dragging, tearing or bruising; these suffer from ulcer of the stomach. Unfortunately, all cases are not so simple or so easy to diagnosticate. Sometimes we meet with complications well calculated to lead us into error. But in such cases it is important not to lose sight of essential facts and first principles. When symptoms which appear contradictory are associated, they should at least cause us to hesitate and suspend our diagnosis, waiting for the judgment of time. We have a striking instance in the following case. A woman, aged sixty-three years, entered the wards at the Charité, January 12, 1874. She had for some time vomited black stuff, and shortly afterwards a hard, uneven tumor, about the size of a hen's egg, and not very sensitive to pressure, was discovered a little above the navel. Her stomach was dilated, and her skin had an icterode cachectic coloration, like that of cancer. She stated that, about four months previously, she had felt violent pains in the stomach. She soon began to vomit, first food, and then the vomit changed its character to a sooty or coffee-ground appearance. The gastric pain, starting from the epigastrium, and extending to the spine at the same level, had grown worse. M. Revillout had often asked the patient about this pain, and her answers were always consistent. The hæmetamesis continued; food was rejected soon after being taken, milk only being tolerated. Her emaciation increased rapidly; the sooty vomitings were more frequent; she was obstinately constipated; her appetite diminished, her weakness increased. She died July 21st. At the necropsy, the pyloric end of the stomach was found indurated, and formed the tumor. The contiguous parts, epiploon and transverse colon were firmly adherent, and were much indurated. On opening the stomach, an ulcer was found at the pylorus, about one inch and five-eighths in length, following the course of the pyloric canal. This ulceration was truly cup-shaped. The mucous membrane was lost at its edges, and its floor was formed by the transverse fibres of the stomach, which were themselves wanting at its deepest part, where the longitudinal muscular fibres became visible. This ulcer was solitary. Around it, the hypertrophied walls of the stomach formed a tumor, which had no characteristics of cancer, either to naked eye or microscopic. It cut firmly, was hard, smooth and shining, but no juice could be squeezed from it. In this case, the diagnosis of cancer of the stomach seemed reasonable. There was the tumor and the icterode cachexia, which are deemed so characteristic. It is true that hæmorrhagic (anæmic) cachexia may simulate the cancerous. But how could we explain the tumor? Cruveilhier mentions a case, noticed *post-mortem*, in which a simple ulcer of the pylorus had produced around it a thickening sufficiently marked to simulate a tumor on percussion. In the case we have been considering, the patient was not cancerous; her dorsal pain was, therefore, not exceptional, but confirmed the rule given above, for this, and this only, allowed the truth to be guessed at—that we had to deal with a simple ulcer, and not with cancer of the stomach.

Correspondence.

PROVIDENCE, R. I., October 6, 1874.

MESSRS. EDITORS,—As it is due to Dr. Barnes, permit me to correct the mistake which makes my letter, published page 264, read "not ever succeeding with his plan of restoring the index," instead of "not *even* succeeding," &c. I originally hit upon the same plan as he proposes, and succeeded by it several times and several times failed, when it occurred to me that it would

be safer and easier to shake the mercury into the tube in the way I described.

Let me add that I feel sure that *any thermometer can be made self-registering* in this manner if due care is used and correction made for the space between the index and the remainder of the column of mercury in the tube. As self-registering instruments are at a premium, this may be of interest to others.

Yours truly, CHARLES H. LEONARD, M.D.

Obituary.

JEFFRIES WYMAN.

[Died Sept. 4th.]

THE wisest man could ask no more of Fate
Than to be simple, modest, manly, true,
Safe from the Many, honored by the Few;
Nothing to court in World, or Church, or State,
But inwardly, in secret, to be great;
To feel mysterious Nature ever new,
To touch, if not to grasp, her endless clew,
And learn by each discovery how to wait;
To widen knowledge and escape the praise;
Wisely to teach, because more wise to learn;
To toil for Science, not to draw men's gaze,
But for her lore of self-denial stern;
That such a man could spring from our decays,
Fans the soul's nobler faith until it burn.

From the Nation, Oct. 8th. J. B. L.

Medical Miscellany.

HYDROPHOBIA is prevailing in Madrid, nine or ten deaths being known to have occurred at latest date.

WE are happy to learn that the *Chicago Medical Journal* will be enlarged after the present year.

RESOLUTIONS OF RESPECT to the memory of the late Dr. Jeffries Wyman were passed at the meeting of the Councillors of the Massachusetts Medical Society, held last Wednesday.

CATARRH SNUFF.—Dr. E. C. Mann, of New York, recommends the use of a snuff composed of equal parts of finely pulverized camphor and white powdered sugar as an adjuvant to the various injections and sprays employed in the treatment of nasal catarrh.—*New York Medical Journal.*

TRACHEOTOMY IN AN INFANT.—A case is reported in the *Journal de Thérapeutique* (1874, No. 15) in which tracheotomy was performed, on account of croup, upon a child only fourteen months old, the operation resulting in immediate relief and speedy recovery.

SMALLPOX INOCULATION IN IRELAND.—The practice of smallpox inoculation, though obsolete in other countries, is still kept up in Ireland, notwithstanding the heavy penalties inflicted upon the inoculators when detected. Numerous cases of variola have recently come to the attention of the medical officers in the County Mayo, and as the parents of those affected decline to reveal the names of the inoculators, it has been resolved to prosecute the parents themselves.

BROMIDE OF AMMONIUM IN ACUTE ARTICULAR RHEUMATISM.—After a trial of more than a year, Dr. J. M. DaCosta is convinced of the value of the bromide of ammonium in the treatment of acute rheumatism. He thinks the drug relieves pain, acts generally upon the skin, keeps up the action of the kidneys and lessens the tendency to internal inflammation. He gives it in scruple doses every three hours.—*Medical Record*, Sept. 15, 1874.

LANCING THE GUMS.—Dr. James Finlayson concludes a paper in the *British Medical Journal* (Sept. 19, 1874) on the alleged dangers of dentition, and the practice of lancing the gums, with the statement that the chief danger of the wholesale use of the gum-lancet lies in its embodying in practice a theoretical view of the ailment, and so tending to close the mind against further inquiry into the diagnosis, etiology and treatment of infantile disorders.

ECHINOCOCCUS IN THE MAMMA.—Dr. Lamenstein (Inaugural Dissertation, Göttingen, 1874) reports a case of the above rare affection occurring in a woman aged 48 years. The tumor, after a growth of many years, attained an enormous size, and finally opened spontaneously. The woman had given birth to nine children, and lactation had never been interfered with, only the affected breast secreted a less amount of milk. The wound healed, and the woman made a good recovery, though at a later date a similar, though smaller, tumor appeared upon the lower edge of the pectoralis major.

EXCISION OF A PORTION OF THE SPLEEN—RECOVERY.—Dr. H. C. Markham, of Winthrop, Iowa, reports (*Medical Record*, Sept. 15, 1874), the removal of almost the entire spleen of an Indian, who had been wounded in an altercation with a white desperado. When called to the wounded man, he found the spleen, to the extent of three-fourths of its volume, projecting from a wound in the abdomen. The organ was already partially sphacelated from constriction at the edges of the wound and the extreme heat of the season, about thirty-six hours having elapsed since the infliction of the wound. The projecting portion of the spleen was removed by a common bistoury to nearly a level with the abdominal walls. The hæmorrhage, which was excessive, was with difficulty controlled. After applying cold-water dressings and giving stimulants, the patient was left to die, as Dr. Markham supposed. About a year afterward, the Indian presented himself at the doctor's office, and, drawing aside his blanket, exhibited the cicatrix of the wound. His only statement was "Indian heap no run."

MARRIED,—In this city, Oct. 5th, in the South Congregational Church, by Rev. E. E. Hale, Clarence J. Blake, M.D., and Frances, daughter of George Hughes.

MORTALITY IN MASSACHUSETTS.—*Deaths in fifteen Cities and towns for the week ending October 3, 1874.*

Boston, 150; Worcester, 10; Lowell, 24; Milford, 4; Cambridge, 18; Salem, 6; Lawrence, 16; Springfield, 13; Lynn, 18; Fitchburg, 4; Newburyport, 2; Somerville, 10; Fall River, 25; Haverhill, 3; Holyoke, 8. Total, 311.

Prevalent Diseases.—Cholera infantum, 59; consumption, 47; typhoid fever, 17; dysentery and diarrhœa, 17; whooping cough, 8; pneumonia, 8.

CHAS. F. FOLSOM, M.D.
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Oct. 10, 160. Males, 71; females, 89. Accident, 4; apoplexy, 3; disease of the bladder, 1; bronchitis, 4; inflammation of the brain, 1; congestion of the brain, 2; disease of the brain, 5; cyanosis, 1; cholera infantum, 19; cholera morbus, 1; consumption, 27; convulsions, 3; croup, 1; debility, 3; diarrhœa, 4; dropsy of the brain, 2; dysentery, 3; diphtheria, 2; diabetes, 1; erysipelas, 1; scarlet fever, 1; congestive fever, 1; typhoid fever, 10; gastritis, 1; hernia, 2; disease of the heart, 10; hæmorrhage, 1; intemperance, 3; jaundice, 1; disease of the kidneys, 2; congestion of the lungs, 2; inflammation of the lungs, 1; marasmus, 14; old age, 1; paralysis, 2; premature birth, 4; peritonitis, 1; puerperal disease, 2; purpura hæmorrhagica, 2; scalded, 1; tetanus, 1; teething, 2; tabes mesenterica, 3; uterine disease, 1; whooping cough, 2; unknown, 1.

Under 5 years of age, 76; between 5 and 20 years, 13; between 20 and 40 years, 33; between 40 and 60 years, 20; over 60 years, 18. Born in the United States, 115; Ireland, 32; other places, 13.